



Practical session 1

Smart phone photography basics & mimicking the Distant Direct technique with your smart phone

Task 1: Learn how to focus

Focus on table , focus on furthest point in room.

Tips:

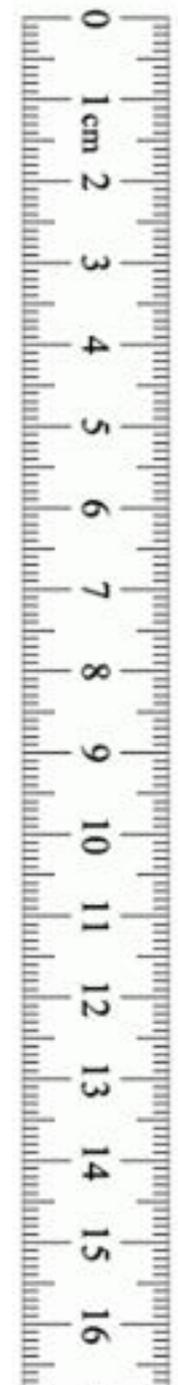
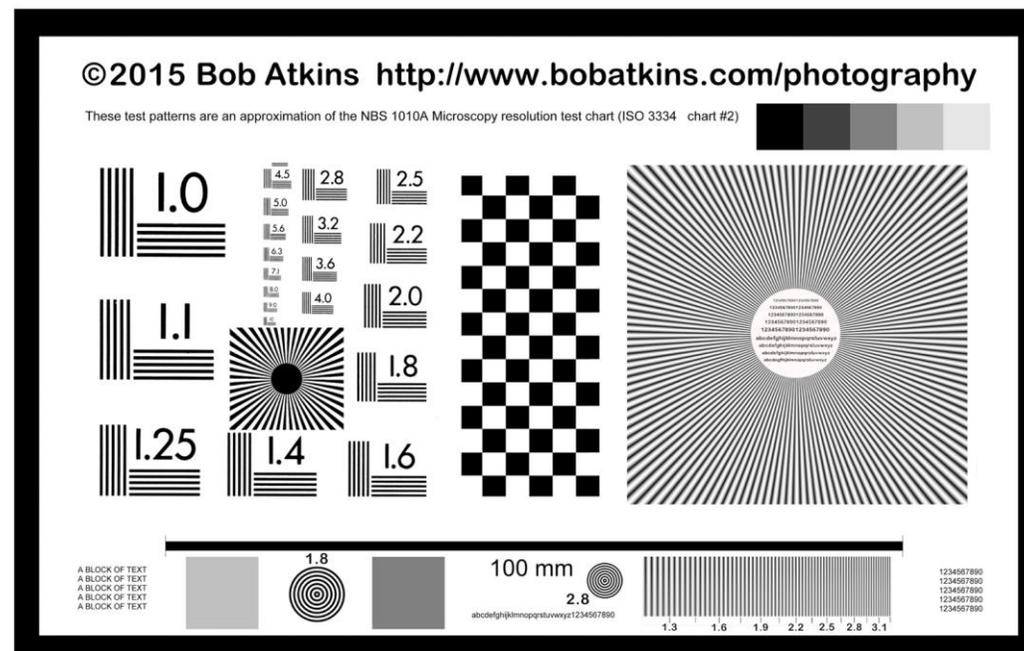
Autofocus by tapping on the screen

Manual focus (where available) - select macro for closest focus point and infinity (mountains) for furthest focal point.



Task 2: Identify your smart phones minimum focal distance (MFD)

Using the focus chart below work out the closest distance you can clearly focus and using your hand as a measure record it on the ruler. Remember your MFD it's the key to successful images.



Task 3: Task Whole head photography

With a partner take 2 images of their face from the front:

- one with no flash
- one with the phone in “torch mode” (the LED turned on continuously).

Tips:

- focus on eyes
- “patient” looking towards you

Look for:

- Asymmetry
- Corneal reflection (on the unlit image)
- Red reflex (anisocoria, opacities in visual axis on the illuminated image)

Task 4: “Whole eye” photography

Using first your model eye and then your partner’s eye, record an image of the eye which fills the screen (use digital zoom), with and without the light turned on continuously.

Tips:

- focus on lateral canthus of your partner and on the model lid if struggling to get focus
- try forcing your phone to focus at it’s MFD (using the macro setting of available or manual focus)
- ensure partner directs gaze at you
- ensure perpendicular to the cornea of your model
- to reduce miosis and increase the size of your red reflex hold phone at arm’s length and use digital zoom.

Look for:

- Asymmetry
- Corneal reflection (in the unlit images particularly)
- Red reflex (anisocoria, opacities in visual axis)

Task 5: “Distant direct phoneoscopy (DDP)”

Step 1: Light on

Step 2: Phone at arms length (30cm+) from eye to obtain tapetal reflection – use digital zoom so both pupils easily visible

Step 3: Assess (and record) PLR by moving light away from pupil

Step 4: Use digital zoom to get pupil to fill your screen.

Step 5: Change angle of view to assess tapetal reflection outside of the visual axis (superior, inferior, nasal and temporal)



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Task 6: “Close distant direct phoneoscopy (cDDP)”

Step 1: Move Phone close to eye, aim to position so the phone is as close to the cornea as it can get and still focus (fixing the focus at the MFD using either the “macro” setting or manually will make this easier). Ensure not using digital zoom at this stage.

Step 2: Move phone slowly forward moving the focal point through the visual axis.

Step 3: Repeat step 2 assessing tapetal reflection outside the visual axis

Step 4: If identify lesions - use digital zoom to enlarge, examine and ensure correct focus before record.